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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**LIXIN XUE ET AL.**

**SERIAL NO.: 09/839,760**

**FILED: APRIL 20, 2001**

**FOR: CIGARETTE FILTERS OF SHAPED  
MICRO CAVITY FIBERS  
IMPREGNATED WITH FLAVORANT  
MATERIALS**

**ART UNIT: 1731**

**EXAMINER: D. A. WALLS**

**Assistant Commissioner for Patents  
Box AF  
Washington, DC 20231**

Sir:

**APPEAL BRIEF**

**REAL PARTY IN INTEREST**

The real party in interest is Philip Morris Incorporated by virtue of an assignment duly recorded in the Patent and Trademark Office on July 12, 2001, at Reel 011976 Frame 0817 (6 pages).

**RELATED APPEALS AND INTERFERENCES**

Appellant is unaware of any other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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**STATUS OF CLAIMS**

Claims 1-9 are pending in this application and stand rejected. These claims constitute the claims on appeal.

**STATUS OF AMENDMENTS**

No response was filed to the Final Office Action dated January 29, 2003. The amendments submitted prior to the Final Office Action have been entered, and a copy of claims 1-9 is attached.

**SUMMARY OF THE INVENTION**

The present invention relates to a unique class of cigarette filters containing fibers with open or semi-open cavities utilized to mechanically entrap solid or liquid smoke modifying material such as flavorants (specification page 5, lines 7-9). Smoke modifying material such as methonal in solid powder form or liquid form is effectively retained in the open or semi-open fiber cavities for effective release into the tobacco smoke and ultimate delivery to the smoker during the smoking process (specification page 5, line 24 through page 6, line 1).

Fibers 22 such as Honeywell's Triad<sup>®</sup> fibers shown in Figures 3 and 4 may be placed in the space 14 of a plug-space-plug cigarette filter attached to a tobacco rod 18, as shown in Figure 1. The smoke modifying material in solid or liquid form is mechanically held in the cavities of the fibers for release into tobacco smoke as the smoke is drawn through the fibers (specification pages 6 and 7, drawing Figures 1-5).

**THE ISSUES**

The single issue in this appeal is whether or not claims 1-9 are patentable or unpatentable under 35 USC §103 over Rohrbach et al US 5,744,236 ("Rohrbach") in view of Woods et al US 4,729,391 ("Woods") and Keritsis US 5,133,376.

**GROUPING OF CLAIMS**

For purposes of this appeal each of the rejected claims should be separately considered, and arguments in support of patentability are submitted below.

**ARGUMENT**

In support of patentability, appellant submits the following.

Appellant respectfully submits that the claims herein define an invention which is neither shown nor suggested by the prior art taken alone or in combination. Specifically the invention of claims 1-9 is not rendered obvious by the combination of Rohrbach taken with Woods and Keritsis, for the following reasons.

Fundamentally, the present invention relates to a unique cigarette filter comprising a micro porous fiber with open or semi-open cavities therein. The cavities are loaded with a flavorant delivering material in solid or liquid form. The fiber may be a trilobal fiber or a quadrilobal fiber, and the flavorant may be pure methanol in solid powder form or in dissolved or melt liquid forms. Also, the methanol flavorant may be supported on an adsorption/absorption particle. As tobacco smoke is drawn through the cigarette filter flavorant is released into the smoke stream.

Rohrbach is the primary reference utilized in the rejection of the claims. Appellant is well aware of Rohrbach and it is identified and discussed in the present specification on page 5, lines 12-17. However, the significant difference between the present invention as claimed and Rohrbach is Rohrbach's failure to disclose or suggest that the fibers can be used in cigarette filters. Instead the fibers of Rohrbach are used for the removal of odors not the release of flavor, a purpose which is the very antithesis of adsorption. Rohrbach is directed to a fundamentally different purpose because odors are adsorbed while in the present invention flavor is released.

This deficiency of Rohrbach is recognized by the Examiner who then erroneously resorts to combining Rohrbach with Woods which discloses particular cigarette filter constructions. However, appellant respectfully submits that this combination is improper because there is no suggestion, teaching or motivation to combine the prior art in this manner.

35 USC §103 requires that the claimed subject matter as a whole not be obvious to a person of ordinary skill in the art at the time the invention was made. This phrase guards against entering into the tempting, but forbidden zone of hindsight. Appellant respectfully submits that the Examiner is resorting to prohibited hindsight in the rejection of claims 1-9 while utilizing the present disclosure as a blueprint for the formulated rejection. While the Examiner may properly reject the claims in this application by showing a suggestion, teaching or motivation to combine the prior art, no such suggestion, teaching or motivation exists in the prior art combination of Rohrbach and Woods relied upon in the rejection.

Instead the Examiner correctly concludes that Rohrbach does not teach or suggest cigarette filters, but then improperly concludes that since cigarette filters are old as shown by Woods it would be obvious to utilize the fibers of Rohrbach in the cigarette filter of Woods. But where is the suggestion, teaching or motivation to make this combination? Absent the present disclosure there is no such suggestion, teaching or motivation.

Rohrbach actually teaches away from the present invention because the odor problem addressed by Rohrbach is allegedly resolved by adsorbing the odors into an adsorbent held in the fibers. In direct contrast to this fundamental principle of Rohrbach, in the present invention a flavorant loaded into microporous fibers is released during the smoking process.

Appellant respectfully submits that the Examiner must provide full reasoning as to what motivation or teaching in the prior art would suggest combining the references relied upon in the obviousness rejection. It is well established that the Examiner's general common knowledge and common sense do not substitute for the authority required by law to reject a claim for obviousness. In re Sang-Su Lee, 61 USPQ 2d 1430 (CAFC 2002).

The Examiner must consider the references as a whole, In re Yates, 211 USPQ 1149 (CCPA 1981). The Examiner cannot selectively pick and choose from the disclosed multitude of parameters without any direction as to the particular one selection of the references without proper motivation. The mere fact that the prior art may be modified to reflect features of the claimed invention does not make the modification, and hence the claimed invention, obvious unless the desirability of such modification is suggested by the

prior art. In re Baird, 29 USPQ 2d 1550 (CAFC 1994) and In re Fritch, 23 USPQ 2d 1780 (Fed. Cir. 1992). Appellant disagrees with the Examiner why one skilled in the art with the knowledge of the references would selectively modify the references in order to arrive at the appellant's claimed invention. The Examiner's argument is clearly based on prohibited hindsight reconstruction.

In summary, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching, suggestion, or incentive supporting this combination. In re Geiger, 2 USPQ 2d 1276 (Fed. Cir. 1987). Appellant respectfully submits that there is no reason for one skilled in the art to combine Rohrbach and Woods and such rejection should be withdrawn.

Keritsis is simply relied upon for its disclosure of particular flavorants. Keritsis does not address the above described deficiency of the Rohrbach/Woods combination, and accordingly all of the claims distinguish over the prior art combination relied upon by the Examiner.

In summary, the Examiner is obligated to combine these references in a failed effort to show that the features of a two line claim (claim 1) are obvious. This is further evidence of nonobviousness and the use of prohibited hindsight in the formulation of the rejection. Absent the present disclosure there is no suggestion for such a combination of art.

It is abundantly clear that claims 1-9 define an invention unsuggested by the prior art relied upon in the rejection. Notice to that effect is respectfully requested.

CONCLUSION

In view of the above argument, it is submitted that claims 1-9 are indeed patentable over the prior art, and it is respectfully requested that the rejection of these claims be reversed.

Respectfully submitted,

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RMB/alh/251202

Attachment: Appendix

APPENDIX

CLAIMS ON APPEAL

Application Serial No. 09/839,760

Filed: April 20, 2001

1. A cigarette filter comprising a micro-porous fiber with open or semi-open cavities which are loaded with a flavorant delivering material in solid or liquid forms.
2. A cigarette filter as in claim 1 wherein the fiber is a trilobal fiber with continuous open or semi-open cavities.
3. A cigarette filter as in claim 1 wherein the fiber is a quadrilobal fiber with continuous open or semi-open cavities.
4. A cigarette filter as in claim 2 wherein the fiber is loaded with pure methanol flavorant delivering material in solid powder form or in dissolved or melt liquid forms.
5. A cigarette filter as in claim 2 wherein the fiber is loaded with methanol flavorant delivering material supported on an adsorption/absorption particle.
7. A cigarette comprising a tobacco rod and a filter, the filter comprising a micro-porous fiber with open or semi-open cavities which are loaded with a flavorant delivery material in solid or liquid form.
8. A cigarette as in claim 7 wherein the fiber is a trilobal fiber with continuous open or semi-open cavities.
9. A cigarette as in claim 8 wherein the flavorant delivery material is methanol supported on an adsorption/absorption particle.